Public Notice

DEPARTMENT OF ECOLOGY
State of Washington

Hazardous Waste and Toxics Reduction Program **February 2010**

Dangerous Waste Corrective Action Permit, Agreed Order, and Cleanup Action Plan for Burlington Environmental, LLC

The Washington State Department of Ecology (Ecology) is proposing to re-issue a permit to Burlington Environmental, LLC. (Burlington). Burlington is a wholly-owned subsidiary of PSC Environmental Services, LLC. (PSC). The facility and site are referred to as PSC-Georgetown.

Hazardous/dangerous wastes were managed at PSC's 734 S. Lucile St. facility in Seattle, Washington (see map at the end of this document), until the facility closed in 2003. The proposed draft permit is required to meet requirements for corrective action under Washington State's Hazardous Waste Management Act (HWMA), Chapter 70.105 Revised Code of Washington (RCW), and its regulations.

The purpose of this notice is to:

- Announce a public comment period and public meeting.
- Summarize the purpose of the permit.
- Summarize the facility's recent corrective action (cleanup) history (Overview, page 2).
- Summarize requirements for future corrective action at the PSC site, including a proposed cleanup action for the eastern portion of the site.
- Describe Ecology's process for making final decisions on the proposed documents.

A final decision on the draft documents (the permit, agreed order, and cleanup action plan, as well as Ecology's State Environmental Policy Act (SEPA) determination, see section F) will be made after Ecology receives and evaluates public comments, (see side panel for details on how to comment).

Purpose of the Permit

One of the primary purposes of the permit is to include an agreed order for corrective action. Specific cleanup requirements for the **East of 4th Area** of the PSC site are described in the draft agreed order and its attached draft cleanup action plan (CAP). These two documents include the proposed, preferred cleanup action for the eastern portion of PSC's site and the requirements associated with implementing and monitoring the remedy. The parties to the order will be PSC and Ecology.

Public Comments

The public comment period runs from February 10, 2010, to March 26, 2010. **To be accepted, comments must be received or postmarked by March 26, 2010.** A public meeting will be held at the Georgetown Campus of the South Seattle Community College on March 3, 2010, from 6:00 pm to 8:00 pm (please see page 6).

You may review the corrective action permit, agreed order, and cleanup action plan, as well as the information Ecology used to make our preliminary decisions at:

Department of Ecology, Northwest Regional Office
3190 160th Avenue SE
Bellevue WA 98008-5452
Tel: (425) 649-7000
Appointments are available
9 a.m. to 4:30 p.m.
Or at the PSC site repository:

ActivSpace – Luna Park Facility
3400 Harbor Avenue SW, # 214
West Seattle, WA 98126

Or visit Ecology's website at http://www.ecy.wa.gov/programs/hwtr/foia/index.html

Please submit your comments to:

Ed Jones
Hazardous Waste and Toxics Reduction Program
Department of Ecology Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA, 98008-5452
Tel: (425) 649-4449;
ejon461@ecy.wa.gov

The preferred cleanup action includes a combination of:

- Containment (using the existing barrier wall and cap on the PSC property).
- Soil excavation and off-site disposal.
- Soil vapor extraction.
- Enhanced groundwater biodegradation.
- Institutional controls.
- Monitored natural attenuation.

See section D for a more detailed description.

A. Overview

In 1991, the Department of Ecology and the U.S. Environmental Protection Agency (EPA) jointly issued a permit to Burlington to treat and store hazardous/dangerous waste at the 734 S. Lucile St. property, now owned by PSC. The permit also included Resource Conservation and Recovery Act (RCRA) "corrective action" requirements and a schedule for meeting those requirements. The permit's corrective action section was modified significantly in 2001 to update its requirements and schedule.

The PSC facility closed as a hazardous/ dangerous waste treatment and storage facility in 2003 and the property is not currently being used commercially[1]. However, releases from past operations at the facility, including storage of wastes and chemicals (solvents, petroleum, etc.) in underground storage tanks, have contaminated soils and groundwater.

Groundwater contamination has been detected beyond the facility property to the west and southwest, and in an area to the east and north, owned by the Union Pacific Railroad company. As a result of this contamination, cleanup requirements continue to be needed in the company's permit and are proposed in the new draft permit and order.

[1] The former PSC Georgetown facility is a secured property no longer used for commercial purposes. PSC uses the adjacent former White Satin Sugar facility for non-RCRA regulated activities and equipment storage.

Washington State's Dangerous Waste Regulations (Chapter 173-303 Washington Administrative Code (WAC)) require a facility that treats, stores, or disposes of dangerous wastes to have a permit until all activities, including corrective actions and final closure, are completed. The facility's existing permit expired in 2001, and since that time requirements in the expired document – still in force – have governed operations and cleanup-related actions.

The proposed draft permit does not include provisions for treatment, storage, or disposal of hazardous wastes; it is strictly a document establishing PSC's outstanding RCRA corrective action obligations at the site. The corrective action provisions of the expired permit will remain in effect until replaced by the corrective action provisions of a new permit.

Although there is presently no treatment, storage, or disposal of any dangerous waste at the PSC-Georgetown facility, PSC is conducting corrective actions to clean up contamination from past management of these wastes. The draft permit incorporates by reference an agreed order that provides for corrective actions at the site pursuant to the authority Revised Code of Washington (RCW) 70.105.130 and .145 of the Hazardous Waste Management Act (HWMA), and RCW 70.105D.050(1) of the Model Toxics Control Act (MTCA). Specific cleanup requirements for the eastern portion of the PSC site – including the proposed, preferred cleanup action – are described in this order and its attached CAP.

B. Site Developments in the Last Five Years

As part of their cleanup requirements under the existing permit, PSC prepared and submitted a Remedial Investigation (RI) report in November 2003. This report was followed by four RI "addenda," submitted in 2004, which finalized the investigation.

PSC then submitted a draft Feasibility Study (FS) report in September 2005. This report was similarly finalized through follow-up documents,

identified as FS Technical Memoranda I through V. These documents have been available for public review since they were issued, and the public may review and comment on them as part of this comment period.

The RI report and its addenda describe the nature and extent of contamination detected at the site. Contaminants in soils and groundwater include chlorinated and non-chlorinated volatile organic compounds, semi-volatile organic compounds, metals, and polychlorinated biphenyls (PCBs). The FS report and its associated technical memoranda evaluate the cleanup options available to PSC for these types of contaminants.

In 2007 and 2008, PSC investigated contaminated soils and groundwater on the Union Pacific Railroad property east and north of their 734 S. Lucile St. property. This work culminated in a report submitted to Ecology last September. The report summarizes the known nature and extent of contamination in the southeast corner of Union Pacific's Argo Yard, and proposes PSC's preferred approach for addressing the contamination. The public may review and comment on this September report, as well as the RI report, its four addenda, the draft FS report, and its five associated FS technical memoranda[2] , during the comment period for the draft CAP.

Interim Actions

PSC conducted two major interim actions, or interim measures, beginning in 2003. An interim action is a measure taken before the final cleanup action. One of these actions was the construction of a subsurface barrier wall.

The wall, completed in early 2004, encircles most of the 734 S. Lucile St. property as well as a large portion of the 5400 Denver Ave. S. property. The wall acts to contain contaminated groundwater beneath PSC's RCRA facility and prevent its migration to the west, towards the Duwamish River.

The second interim action was a vapor intrusion assessment program. This program, still in existence and proposed for continuation in the draft CAP, assesses individual buildings in areas where volatile organic compound concentrations are elevated in shallow groundwater. Where concentrations exceed a certain threshold, or where indoor air measurements indicate that vapor intrusion may be unacceptably impacting indoor air quality, mitigation measures are implemented. To date, PSC has implemented thirty such mitigations in their site area.

C. Draft CAP and Agreed Order: Not the Entire Site

Due to the discovery of other contaminant sources west of 4th Avenue South, the PSC site was divided into two portions in 2005: (1) contamination at and near the PSC property at 734 S. Lucile St., as well as contamination in groundwater as far west as 4th Ave. S.; and, (2) contamination in groundwater west of 4th Ave. S. These two portions of the site are named the "East of 4th Area" and the "West of 4th Area." **The proposed agreed order and cleanup action plan only focuses on the East of 4th Area.**

The draft agreed order states that PSC is obligated to address contamination west of 4th Avenue caused by releases from their facility. However, the West of 4th Area is currently being investigated by three other potentially liable persons (PLPs) under separate orders. Specific PSC cleanup responsibilities in this area are expected to be proposed to the public in a state order or decree following completion of the three respective investigations (and, if applicable, feasibility study) reports.

D. Preferred Cleanup Action for the Eastern Portion of the PSC-Georgetown Site

The draft cleanup action plan (CAP) attached to PSC's draft agreed order discusses the various cleanup action alternatives the company evaluated in their FS documents.

[2] The draft CAP contains a good, comprehensive summary of the cleanup alternatives evaluated during PSC's FS.

It also includes Ecology's preferred alternative and rationale for addressing:

- The contamination detected immediately east and north of the PSC property, on property owned by Union Pacific.
- Contamination on the PSC property, the location of the former RCRA hazardous waste treatment and storage facility.
- Contamination beneath the 5400 Denver Ave. S. property, now owned by PSC.
- Contamination (primarily in groundwater and soil gas) between PSC's properties and 4th Ave. S[3].

The preferred alternative is a combination of a number of remedial elements. It relies upon:

- A totally enclosing, low-permeability subsurface barrier wall, which surrounds most of PSC's RCRA facility and isolates contaminated groundwater within the enclosed area.
- A groundwater recovery and treatment system to maintain an inward hydraulic gradient within the barrier wall area. This system maintains pressures across the wall so that any leakage through the wall should result in groundwater coming inside the enclosed area (from outside the wall), not leaving it.
- Excavation and off-site disposal of approximately 200 cubic yards of soil on the 5400 Denver Ave. S. property that contain elevated concentrations of PCBs (polychlorinated biphenyls).
- Soil vapor extraction (SVE) in the area inside the wall. SVE will remove and treat volatile contaminants from soils above the water table.
- In situ bioremediation (ISB) through electron donor injection into contaminated groundwater inside the barrier wall. ISB will reduce the mass of certain types of organic contaminants (chlorinated ethenes, for example) in groundwater.
- A low-permeability surface cover[4] that will completely cover the area enclosed by the barrier wall. This cover will prevent exposures to soil contamination and reduce the amount of precipitation entering groundwater behind the wall.
- Reliance on the natural reduction of some contaminant mass in soils and groundwater within the enclosed area.
- A monitoring program to measure the performance of the actions taken and contaminant concentrations over the long-term. The program will also confirm that hydraulic containment is maintained (contaminated groundwater now inside the wall stays there).
- Institutional controls to:
  - restrict groundwater use inside the barrier wall.
  - restrict and regulate subsurface work conducted within that area.
  - require vapor intrusion mitigation as part of any building construction in the area inside the barrier wall.
  - require continued operation, maintenance, and repair of the barrier wall and its pumping system, surface cover, and the monitoring well system.
- Financial assurance to implement the cleanup action, monitor its performance, and provide for long-term operation, maintenance, and repair of the remedy.
- Continued implementation of the existing vapor intrusion assessment and mitigation program that protects indoor air quality in areas outside the barrier wall. This program would be maintained as long as sub-surface contamination in the area poses an unacceptable vapor intrusion threat.
- SVE to remediate subsurface soils located: a) in the area immediately southwest of the

[3] Groundwater contamination that is at least partially due to releases from PSC's facility has been detected as far north as Brandon St. and as far south (east of 4th) as Mead St.

[4] With the goal to effectively "cap" uncovered areas. The cover will be paving, and in other places, buildings.

barrier wall, and b) on a small portion of Union Pacific's Argo Yard property.

- Excavation and off-site disposal of contaminated soils within a strip of Union Pacific's property east of PSC's RCRA facility. The soils to be excavated include those that are contaminated with PCBs and other hazardous substances.
- Placement of additional surface cover over contaminated soil areas located on PSC and Union Pacific properties to prevent exposures to soil contamination left in place following the actions described above.
- Enhanced groundwater bioremediation in soil excavation areas on the Union Pacific property by a one-time placement of electron donor material into the base of select excavations prior to placement of backfill.
- A comprehensive groundwater monitoring well network and monitoring program for areas outside the wall. The program will assess groundwater quality: a) at the proposed conditional point of compliance; b) in areas downgradient from this point; and, c) on Union Pacific's property.

  The monitoring program will track the natural attenuation of groundwater contamination over time and thereby provide a means of measuring the performance of the final remedy. It will be used to determine if the implemented cleanup action is effective, or needs to be changed (e.g., supplemented with one of the contingent remedies).
- A combination of administrative controls, other institutional controls, and public communications to restrict groundwater recovery within the area outside the barrier wall, limit the potential for exposure to contaminated soils[5], and notify the public of potential risks and hazards associated with subsurface work in contaminated areas.
- Investigation of potential 1,4-dioxane sources in areas southwest of PSC's property. The investigation will attempt to determine if groundwater contaminated with 1,4-dioxane may be a result of releases at properties in addition to PSC's facility.
- Contingent remedial actions in case natural attenuation does not result in attainment of cleanup levels at predicted rates.

The preferred action uses permanent actions, but also relies upon containment, institutional controls, and continued implementation of PSC's vapor intrusion assessment and mitigation program. It recognizes that groundwater between the PSC property and the Duwamish River is not a source of drinking water and would not be such a source within the foreseeable future.

Groundwater cleanup levels outside the wall (both up and downgradient) are proposed to be based on protection of surface water (the Duwamish River) and indoor air quality. Groundwater behind the wall will be actively remediated, as noted above, and some contaminant concentrations will naturally attenuate over time, but PSC is not attempting to achieve cleanup levels in this area. Instead, the "point of compliance" for attaining cleanup levels will be immediately outside the barrier wall.

Contaminated soils on PSC's properties and on the adjacent Union Pacific property will also be actively remediated, but some contamination will remain at concentrations above cleanup levels. These areas are proposed for capping.

Following finalization of the permit, order, and CAP, PSC will prepare several documents, including an Engineering Design report. The Engineering Design report will contain the specifics of PSC's proposed SVE system, soil excavation effort, and enhanced groundwater bioremediation action. It will also include more detail about the institutional controls required by the CAP.

[5] For example, soils on properties immediately adjacent to PSC's property, but outside the barrier wall, such as Union Pacific's Argo Yard.

E. Permit and Permit Conditions

The proposed draft permit, including the agreed order it incorporates by reference, meets state requirements for corrective action at the PSC-Georgetown facility. Although PSC does not currently treat or store dangerous waste at the facility, a permit for corrective action is required due to historic releases from past management of dangerous waste.

This corrective action-only permit differs from dangerous waste management permits for fully functioning facilities. This is because some standard permit requirements are unnecessary in a permit limited to cleanup responsibilities. Therefore, the permit itself is relatively short, with most of the corrective action requirements for conducting site cleanup contained in the agreed order.

F. Procedures for Reaching Final Decisions

The draft permit, order, and CAP are subject to public review and comment. Ecology will consider all public comments before making a final decision on the documents. Regulatory requirements for the public review process are described in WAC 173-303-840(3) through (9) and WAC 173-340-600.

Comment Period

The 45-day comment period on Ecology's tentative decision to issue the draft permit, and our proposed agreed order and SEPA determination, runs from February 10, 2010 through March 26, 2010.

How to Participate

To receive a copy of Ecology's draft permit and/or fact sheet, draft order, or draft cleanup action plan, contact Ed Jones at the phone number or email address listed in the side panel on the first page of this notice.

The files containing information Ecology used to make the decision are also available for review. See the side panel on the first page of this notice for locations and hours of availability.

Ecology welcomes your comments. The most effective comments are those that:

- ☑ Provide specific information describing what condition you believe is inappropriate.
- ☑ Provide factual and regulatory support for the comment.
- ☑ Suggest changes to fix the problem.
- ☑ Includes all supporting materials in full. This information may not be incorporated into comments *by reference*, unless it is already part of the administrative record or consists of "state or federal statutes and regulations, documents of general applicability, or other generally available reference materials."

Comments may be mailed or emailed to Ecology, or they may be made in person at the meeting (or subsequent public hearing, if one is held). Providing written comments assures their proper consideration during Ecology's decision-making process and helps the Department to respond meaningfully.

WAC 173-303-840(6) provides details on the obligation to raise issues and provide information during a draft permit public comment period, if a member of the public believes a condition of the draft permit is inappropriate. Likewise, objections to the draft agreed order and/or draft cleanup action plan must be communicated to Ecology during this same comment period. However, commenters may request a longer comment period, and Ecology may grant such extensions for cause.

Public Meeting

Ecology and PSC will hold an "open-house" style public meeting at the Georgetown Campus of the South Seattle Community College (SSCC) on March 3 to explain the draft documents, answer questions, and receive comments from the local community and general public. The meeting will be held in Building C and begin at 6:00 pm. It will last approximately two hours. See http://www.southseattle.edu/campus/map.htm#gt for directions to the SSCC Georgetown campus and a map showing the location of Building C.

If, in addition to this meeting, ten or more people request a public hearing, Ecology will conduct one. If fewer than ten people request a hearing, one will not be held. To request a hearing, or to request special accommodation for the hearing if one is held, contact Ed Jones by phone, letter, or email by March 26.

G. Decision-Making Process

Responding to comments (and testimony, if a hearing is held)

After the close of the public comment period, Ecology will issue a final permit, agreed order, and cleanup action decision. The Department will notify PSC and each person who has submitted written comments or requested notice of our decisions. At that time Ecology will also issue a response to comments. This response will specify which document provisions, if any, of the documents were changed in our final decision and the reason for the change. It will briefly describe and respond to all significant comments raised during the public comment period or during any hearing, and be available to the public.

Final permit decision

As noted above, after considering the comments and (any) testimony, Ecology will make a final permit decision or make a new tentative decision on the permit[6]. Ecology will then sign the final permit and order and give public notice of the final permit decision. Any final permit for the PSC facility will run for ten years from its effective date. However, the permit can be modified during this period.

Effective date of the decision

Normally, a permit is effective 30 days after Ecology gives notice of the final decision to the permittee(s) and all persons who commented. But if there are no comments on the draft permit, Ecology may specify an earlier effective date.

Environmental review

Ecology is the lead agency for SEPA concerns related to corrective action at the PSC-Georgetown facility. Under SEPA the identification and evaluation of probable environmental impacts is required at this point in the cleanup process.

One of the main purposes of the draft permit is to incorporate an agreed order for corrective action.

The agreed order incorporates the MTCA Cleanup Regulation (Chapter 173-340 WAC). SEPA, in turn, provides for the integration of the MTCA process into SEPA decision making.

Ecology has determined that our proposed cleanup action will not significantly impact the environment (as impacts are defined in SEPA). The checklist completed preliminary to our decision and the Determination of Non-significance (DNS) are both available for review during the comment period at our Northwest Regional Office.

Appealing the final permit decision

Anyone who comments on the draft permit, or who participates in a public hearing (if held), may appeal Ecology's final decision within 30 days of the date Ecology issues the decision. Others may appeal changes made between the draft permit and the final permit even if they did not comment during the comment period. Ecology's final decision on the permit may be appealed to the Pollution Control Hearings Board[7]. The agreed order, however, may not be appealed to the Board.

Questions?

If you have any questions regarding this notice, you may contact either of the following individuals:

[6] Ecology may amend the draft permit, order, or CAP on the basis of public comments. If so, Ecology shall provide additional public notice and opportunity to comment if the documents are substantially changed.

[7] Because of EPA's oversight authority, EPA is not required to go through the Pollution Control Hearings Board to appeal state authorized permits. Should EPA appeal, they would then work directly with Ecology to address their concerns.

- Ed Jones, Dept of Ecology, (425) 649-4449, or ejon461@ecy.wa.gov.
- William Beck, PSC Site Manager, (425) 227-6149, or wbeck@pscnow.com.

Environment International Ltd.

For the past several years Environment International (EI) Ltd. has been the Georgetown Community Council's consultant for the cleanup process at PSC's site. EI has reviewed a number of PSC documents and provided their comments to the Council and Ecology.

For more information about EI, or about comments they have made on the Council's behalf, please call Cathy Hendrickson, the Council's grant coordinator, at (206) 764-7128.

Glossary

1,4-dioxane: a semi-volatile chemical that has been used as a solvent stabilizer. It is sometimes detected in contamination resulting from a solvent (like 1,1,1-trichloroethane) release.

Agreed Order: a legal document signed by the Ecology and PSC (in this case), setting out a process, expectations, and schedule for site cleanup.

Bioremediation (or biodegradation): the use of biological methods to clean-up contamination. It can entail the addition of bacteria or other organisms to the subsurface environment, or rely upon existing organisms. The organisms consume or neutralize contaminants; sometimes this requires the addition of an environmentally-safe "fuel" source (like molasses) or oxygen to improve contaminant destruction.

Cleanup Action Plan (CAP): the document which sets out the proposed cleanup action ("remedy" or "remedial action") for a site .

Corrective Action: a RCRA term that essentially means site cleanup. The term encompasses the entire cleanup process (investigation, assessment, remedy selection, remedy implementation, and attainment of cleanup goals).

Engineering Design Report: a document which is prepared after the Cleanup Action Plan has been finalized. It includes the Design specifications associated with the selected remedial action.

Facility: This term can mean different things depending on the context. In the state MTCA regulations (WAC 173-340) "facility" means the same thing as "site" -- that is, the area over which contamination is found. But for companies that treat, store, or dispose of hazardous wastes, the term "facility" is also used to refer to the property where these management activities take place.

In the PSC-Georgetown CAP we consistently refer to "site" when we mean the contaminated area due to releases from the PSC property (at 734 S. Lucile St.) and associated hazardous waste management operations.

Feasibility Study (FS): an analysis prepared following the site investigation, which evaluates alternative potential cleanup actions.

Financial assurance: a demonstration (to Ecology) that the party responsible for the cleanup (PSC, in this case) will be able to fund the selected action.

Interim Action: an action taken by the party responsible for the cleanup, before the final site cleanup action has been implemented. An example is the subsurface barrier wall at the site. PSC constructed the wall in 2003/2004 to prevent contaminated groundwater beneath their property from continuing to migrate west and southwest. This was more than five years before proposing a final cleanup action for the eastern portion of the site.

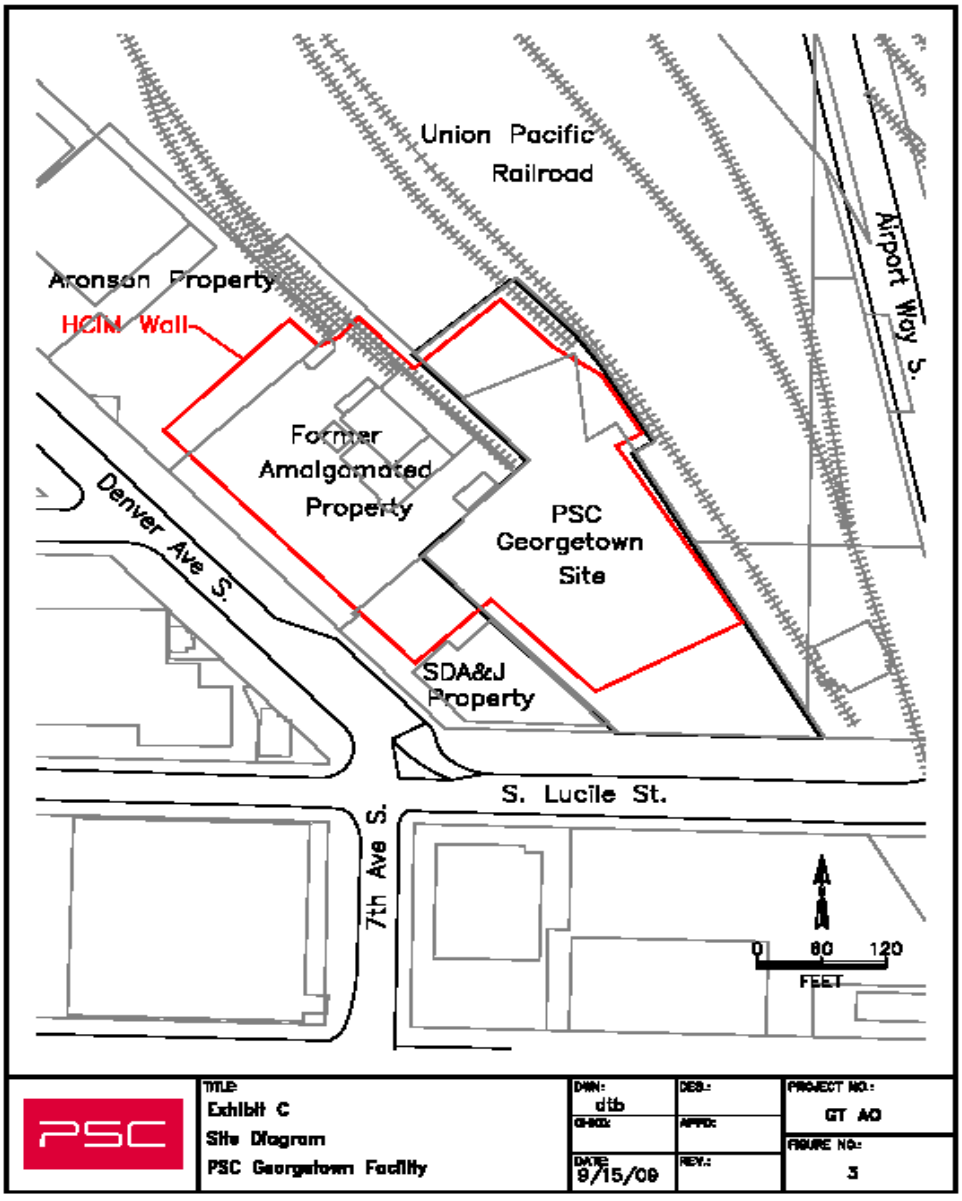
Monitored Natural Attenuation: natural attenuation is used to refer to the ability of the environment to "clean" itself (reduce contaminant concentrations). In groundwater, for example, contaminant concentrations can be reduced by several naturally-occurring processes. Some of

these processes, like bioremediation (see definition above), irreversibly degrade the chemical, and can lead to a permanent reduction in the amount (mass) of contamination. Monitored natural attenuation simply means that if a cleanup action relies, in part, on natural attenuation, contamination levels must be monitored over time to ensure that cleanup goals are met.

Remedial Investigation (RI): the actions taken at a site to determine the nature of the contamination, its extent, and what risks it may pose to human health or the environment.

Soil Vapor Extraction (SVE): a soil cleanup technology that applies a vacuum to soils above the water table, "pulling" volatile contaminants in the gas-phase out of the ground. Once these gases are extracted they are treated and discharged to the atmosphere.

Vapor Intrusion: a process whereby volatile contaminants in soil gas (below ground) can enter a building located above or close to the subsurface contamination through cracks or other openings in the lowest floor.



Department of Ecology

HWTR
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We used several mailing lists. If you receive a duplicate, please pass it on.